

Message Text

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TAGS:ENRG, TGEN, ATRA, UR
SUBJECT: ESTONIA SHALE OIL PLANT VISIT

REF: A.LENINGRAD 2125, B.77 LENINGRAD 498, C.MOSCOW

1. IN APRIL 1977 REF B, SENT IN ANTICIPATION OF VISIT
TO ESTONIA AFTER MAY 10, ASKED DEPARTMENT WHAT ASPECTS
OF SOVIET SHALE, OR GAS FROM SHALE, PROGRAM WERE WORTH
PURSUING. ECON FILES DO NOT CONTAIN COPY OF REPLY, IF
ANY. YOU MAY WANT TO CHECK CONGEN FILES.

2. IN TERMS OF ELICITING INFORMATION IT MIGHT BE USEFUL
TO STRUCTURE INQUIRIES ALONG LINES OFTEN USED BY SOVIET
VISITORS TO THE U.S., I.E., ASKING ABOUT THE OPERATING
HISTORY OF THE PLANT. (1) WHEN DID OPERATIONS START?
(PRESUMABLY 1968 FOR ESTONSKAYA GRES.). WHAT KINDS OF
PROBLEMS WERE THERE AT START-UP? HOW LONG DID IT TAKE
TO GET TO DESIGN CAPACITY? WHAT PROBLEMS AROSE AND HOW
WERE THEY OVERCOME? (2) SEEK CAPACITY, INPUT AND PRO-
DUCTION FIGURES FOR EACH YEAR (IN TERMS OF TONS OF SHALE,

TONS OF STANDARD FUEL EQUIVALENTS, KILOWATT-HOURS, ETC).
ANNUAL OPERATING COSTS FOR FUEL, EQUIPMENT AND LABOR
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WOULD BE OF INTEREST, AS WOULD CHANGES IN LABOR
PRODUCTIVITY, EFFICIENCY AND FUEL ECONOMY. TO GAIN
ANOTHER INSIGHT INTO CAPACITY OR RELIABILITY OF PLANT,
YOU COULD ASK ABOUT WHAT PERCENTAGE OF THE TIME THE PLANT
OPERATES AND AT WHAT PERCENTAGE OF NOMINAL CAPACITY.
DOWNTIME FOR REGULAR MAINTENANCE OR UNPLANNED REPAIR
WOULD ALSO BE USEFUL ELEMENT. (3) WHAT IS TYPE AND EX-

TENT OF PROCESSING OF YOUR BITUMINOUS SHALE AFTER MINING AND BEFORE BEING BURNED AT A POWER STATION?

(4) RE: ENVIRONMENTAL PROBLEMS. WHAT GOES UP THE SMOKE-STACK? WHAT SPECIAL EQUIPMENT, IF ANY, IS USED TO PREVENT AIR POLLUTION (E.G. DESULFURIZATION) OR WATER POLLUTION? WHAT IS DONE WITH YHID WASTES?

3. IF AT A POWER STATION, YOU COULD ASK ABOUT POWER - BOTH THERMAL AND ELECTRIC - OF THE PLANT (PRESUMABLY 2 GIGAWATTS OR 2 THOUSAND MILLION WATTS OF ELECTRICITY AT ESTONSKAYA GRES) AND CAPACITY OR RELIABILITY (SEE SUBPARA (2) ABOVE). IN THE U.S. IT IS TYPICALLY ABOUT 75 PERCENT. WHEN WAS NOMINAL OR DESIGN ELECTRICAL GENERATING CAPACITY REACHED? WHAT IS/WAS CURRENT/ PAST FUEL EFFICIENCY?

4. WHAT SPECIAL MATERIALS ARE USED IN THE BOILERS - AND ELSEWHERE - TO PROTECT AGAINST THE CORROSIVE NATURE OF SHALE OIL? HOW ARE BOILERS MAINTAINED? IS THE WHOLE PLANT CLOSED DOWN OCCASIONALLY OR IS IT DONE PIECEMEAL? HOW OFTEN DO BOILERS HAVE TO BE COMPLETELY REPLACED?

5. WHEN PLANT, OR PART OF IT, IS DOWN FOR MAINTENANCE OR REPAIR, HOW IS DECREASE IN ELECTRIC POWER OUTPUT HANDLED? IS ELECTRICITY BROUGHT IN FROM ELSEWHERE ON THE GRID? WHAT HAPPENS AT PEAK LOADS? HOW ARE ANY SHORT-LIMITED OFFICIAL USE

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FALLS HANDLED? (THAT LAST MAY BE A LITTLE TOUCHY BUT IT HAS BEEN DISCUSSED AT THE TECHNICAL LEVEL IN OTHER SOVIET POWER PLANTS.)

6. YOU MIGHT ASK WHETHER SOVIETS THINK THEY HAVE SHALE TECHNOLOGY WHICH COULD BE USEFUL IN U.S. (IT IS OUR IMPRESSION THAT ESTONIAN SHALE IS BITUMINOUS WHEREAS THAT IN U.S. IS ANTHRACITE, SO RELEVANCE OF SOVIET EXPERIENCE IS UNCLEAR TO US.). IF PLANT PERSONNEL SEEM FORTHCOMING YOU MIGHT SOUND OUT RECEPTIVITY TO VISIT BY U.S. SPECIALISTS SOME TIME IN FUTURE UNDER OUR ENERGY OR ENVIRONMENTAL AGREEMENTS.

7.FYI. A PAMPHLET PREPARED BY GENERAL ELECTRIC DESCRIBES OIL SHALE IN U.S. AS FOLLOWS: QUOTE.TOTAL U.S. OIL SHALE RESOURCES ARE ESTIMATED AS HIGH AS 27 TRILLION BARRELS OF OIL, AND COMMERCIALY EXPLOITABLE RESOURCES ARE ESTIMATED TO BE PERHAPS AS HIGH AS 400 BILLION BARRELS OF OIL. NINETY PERCENT OF THE IDENTIFIED U.S. SHALE OIL RESOURCES ARE LOCATED IN THE SEMI-ARID GREEN RIVER FORMATION, A 25,000 SQUARE MILE AREA (6,475,000 HECTARES) SPANNING COLORADO, UTAH AND WYOMING. THE RANGE OF

ESTIMATES FOR THE TOTAL INCREMENTAL DEMANDS FOR WATER FOR
FOR A 1 MILLION BARREL/DAY SHALE OIL INDUSTRY VARIES FROM
76,000 TO 295,000 ACRE FEET PER YEAR. UNQUOTE. TOON

NOTE BY OC/T: REFTTEL C OMITTED BY ORIG.

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